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IN THE SPECIFICATION:

Please amend the specification as follows:

(1) The paragraph from page 1, line 18 to page 1, line 27 has been amended as follows:

Fig 7 is a front view of a conventional blood vessel knife. As illustrated in the Fig 7, the blood vessel knife 10 is composed of a grip 11, a cutter holder 12 and a knife main body 13. The grip 11 is formed to be a round rod made of stainless steel, and an approximately half portion 11a on a tip side is knurled to prevent a slippage. ~~To~~ The cutter holder 12a is inserted in a tip of the grip 11 ~~is inserted the cutter holder 12~~ to connect the both with each other. This cutter holder 12 is, generally, made of synthetic resin. ~~To~~ The knife main body 13 is inserted in a tip of the cutter holder 12 ~~is inserted the knife main body 13~~ for mounting. The blood vessel knife 10 is formed to be linear overall length from the grip 11 to the knife main body 13.

(2) The paragraph from page 2, line 7 to page 2, line 16 has been amended as follows:

Fig 9 shows a condition that the above blood vessel knife 10 incises a blood vessel 15. This blood vessel 15 is one of coronary arteries of a heart, and the blood vessel 15 is surrounded by body tissues such as a heart. The upper blood vessel wall 15a is on the surface side, and the area

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below the lower blood vessel wall 15b is positioned a heart. In order to incise the blood vessel 15 as described above, in the past, the blood vessel knife 10 is slightly diagonally contacted to the blood vessel 15; the upper blood vessel wall 15a is penetrated by the tip of the knife main body 13; and the tip is moved by ~~about some~~ several millimeters so as not to penetrate the lower blood vessel wall 15b with the tip of the cutter to incise the blood vessel 15.

(3) The paragraph from page 3, line 7 to page 3, line 13 has been amended as follows:

The present invention has been made to solve the above problems, and the object thereof is to provide a blood vessel knife, with which a doctor is easily able to see the knife main body 13 while holding it with his or her hand; it becomes easier to prevent the cutter from penetrating the lower blood vessel wall 15b during heartbeats; and the angle that the knife main body 13 is contacted to the blood vessel 15 is changeable in accordance with the positions of a patient or the preference of a doctor.

(4) The paragraph from page 3, line 15 to page 3, line 22 has been amended as follows:

In order to achieve the above object, a blood vessel knife of the first invention comprises: a rod-shaped grip;

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a cutter holder with a knife main body detachably attached to a tip portion of the grip; and a first bent portion formed at an end or both ends of the grip and/or a second bent portion formed to the cutter holder, wherein the cutter holder can be engaged with the tip portion of the grip either from inside and or outside of the tip portion of the grip; and an angle between the grip and the knife main body is changeable depending on whether the cutter holder is engaged from the inside or the outside of the tip portion.

(5) The paragraph from page 4, line 10 to page 4, line 16 has been amended as follows:

~~{Operation of the Invention}~~

When the grip of the blood vessel knife is ~~gripped~~ gripped, the bent portion allows the knife main body to easily be seen over a hand gripping the grip. In addition, this bent portion causes the knife main body to penetrate nearly in parallel to a blood vessel as illustrated in Fig. 6. With the above construction, it becomes difficult that the knife main body penetrates the lower blood vessel wall.

(6) The paragraph from page 4, line 17 to page 4, line 22 has been amended as follows:

With the construction that the cutter holder is detachable and ~~plurality~~ a plurality of cutter holders with different bent angles are prepared, a cutter holder with a

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suitable bent angle can be selectable in accordance with conditions that the blood vessel knife is used. It is possible to change the bent angle by mounting the cutter holder from upside or downside of the tip portion.

(7) The paragraph from page 4, line 24 to page 5, line 9 has been amended as follows:

Fig 1 is a front view showing a primary portion of a blood vessel knife according to an embodiment of the present invention; ~~Fig 2 is~~ Figs 2A and 2B are enlarged views of a tip portion of a grip, in which Fig 2A is a plan view, and Fig 2B is a front view; ~~Fig 3 is~~ Figs 3A-3D are enlarged views of a cutter holder, in which Fig 3A is a front view; Fig 3B is a cross-sectional front taken along the line A-A of Fig 3A; Fig 3C is a view observed from B in Fig 3A; and Fig 3D is a ~~end~~ cross-sectional view taken along the line C-C of Fig 3A; Fig 4 is a view for explaining a manner to mount the cutter holder to the tip portion of the grip; Fig 5 is a front view showing a primary portion when the cutter holder is mounted to the tip portion of the grip from a side opposite to that shown in Fig. 1; Fig 6 is a view showing a condition that a blood vessel knife according to the present invention incises a blood vessel; Fig 7 is a front view of a conventional blood vessel knife; ~~Fig 8 is~~ Figs 8A and 8B are enlarged views of a cutter holder shown in Fig. 7, in

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which Fig 8A is a front view, and Fig 8B is a bottom view;  
and Fig 9 is a view showing a condition that the blood  
vessel knife illustrated in Fig. 7 incises a blood vessel.

(8) The paragraph from page 5, line 13 to page 5, line 19  
has been amended as follows:

Figs ~~1 to 5~~ 1 to 6 show an embodiment of the present  
invention. In a blood vessel knife 1 in this embodiment, a  
tip portion 2b of a grip 2 is bent at a first bent portion  
2a, and to the tip portion 2b is detachably mounted a cutter  
holder 3 with a second bent portion 3a. The cutter holder  
3 is integrally formed of synthetic resin, and at the tip of  
a haft portion 3b of the cutter holder 3 is attached a knife  
main body 4 of which cutter (cutting edge) 4a faces upward  
with respect to a blood vessel.

(9) The paragraph from page 5, line 20 to page 6, line 1 has  
been amended as follows:

~~Fig 2A, 2B~~ Figs 2A and 2B show enlarged views of the  
tip portion of the grip, in which Fig 2A is a plan view, and  
Fig 2B is a front view. The grip 2 ~~is divided to~~ has a grip  
main body 2c and a tip portion 2b at the first bent portion  
2a. The grip main body 2c is a solid or hollow cylinder  
made of stainless steel, and the outer surface thereof is  
knurled to prevent ~~slipping~~ slippage. The tip portion 2b ~~is~~  
has a plate-like shape, and its shape is changed from a

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round to a plate at the first bent portion 2a, and the tip portion 2b is bent so as to make an angle  $\alpha$  with the grip main body 2c. The tip portion 2b is provided with a substantially rectangular long hole 2d at the central portion thereof, and the tip portion 2b becomes gradually thinner from a position near the front edge of the long hole 2d toward the tip, and a slit 2e is formed in an axial direction thereof from the tip thereof.

(10) The paragraph from page 6, line 2 to page 6, line 28 has been amended as follows:

~~Fig 3A to 3D show~~ Figs 3A-3D are enlarged views of the cutter holder 3, in which Fig 3A is a front view; Fig 3B is a cross-sectional view taken along the line A-A of Fig 3A; Fig 3C is a view observed from B in Fig 3A; and Fig 3D is ~~an~~ a cross-sectional view taken along the line C-C of Fig 3A. The cutter holder 3 illustrated in the views is provided with the second bent portion 3a near the central portion thereof, and on one side of the second bent portion 3a is a bent portion 3c, which is made by bending a square pillar to form a character J, and on the other side is the haft portion 3b. As illustrated in Fig 3C, the bent portion 3c and the haft portion 3b have the same width. The bent portion 3c has the dimension ~~so as~~ that enables its tip portion to enter the long hole 2d drilled on the tip portion

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2b of the grip 2 ~~from the tip thereof~~. The bent portion 3c and the haft portion 3b are reinforced by a plate-shaped reinforcing piece 3d. The tip of the bent portion 3c is enlarged and rounded, and at a portion slightly entering to a curved portion from an end is formed a projection 3e. Then, at the curved portion on the tip side from the projection 3e is formed a concaved portion 3f as a first engagement portion. On the haft portion 3b side of the bent portion 3c, a hook portion 3g projects toward the inside of the bent portion 3c, and a plate-shaped projection 3h stands in the same plane as the reinforcing piece 3d at the central portion of the hook portion 3g. The plate-shaped projection 3h has a thickness so ~~as to~~ that it can be inserted into the slit 2e that is formed at the tip of the grip 2. A concaved portion 3i as a second engagement portion is formed by the hook portion 3g and the plate-shaped projection 3h, ~~and as~~ shown in Fig 3C. The concaved portion 3i is combined with the first engagement portion to constitute an engagement portion 3j for the tip portion 2b of the grip 2. As illustrated by phantom lines in Fig. 3A, when the tip portion 2b is engaged, the haft portion 3b bends so as to make an angle  $\beta$  with the tip portion 2b at the second bent portion 3a.

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(11) The paragraph from page 6, line 29 to page 7, line 18 has been amended as follows:

Fig 4 is a view for explaining a manner to mount the cutter holder 3 to the tip portion 2b of the grip 2. In order to mount the cutter holder 3 to the tip portion 2b of the grip 2, at first, ~~to the slit 2e at the tip of the tip portion 2b is entered~~ a side end portion of the hook portion 3g of the plate-shaped projection 3h of the cutter holder 3 is fit in the slit 2e at the tip of the tip portion 2b. Then, the cutter holder 3 is rotated about the engagement portion ~~is rotated the cutter holder 3~~ in a direction indicated by the arrow. As a result, the tip of the bent portion 3c reaches an edge on the tip side of the long hole 2d and stops there once. Pushing the tip of the bent portion 3c to the long hole 2d allows the tip of the bent portion 3c to cross an end on the tip side of the long hole 2d, and to penetrate the long hole 2d and project toward the opposite side, which causes the edge portion on the tip side of the long hole 2d to slip in the concaved portion 3f of the cutter holder 3. Since the cutter holder 3 is integrally formed of synthetic resin, the bent portion 3c is resilient, and the tip portion 2b is pressed against the concaved portion 3i at the opposite side, which allows the cutter holder 3 to securely be fixed to the tip portion 2b



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of the grip 2 as illustrated in Fig. 1. When removing the cutter holder 3 ~~is removed~~, the cutter holder 3 is rotated in such a manner that the tip of the bent portion 3c is drawn out under the condition shown in Fig. 1 to realize the condition shown in Fig. 4 to dismount the cutter holder 3.

(12) The paragraph from page 7, line 25 to page 8, line 1 has been amended as follows:

Fig 5 is a front view showing a primary portion when the cutter holder 3 is mounted to the tip portion 2b of the grip 2 from a side opposite to that shown in Fig. 1. In the embodiment of the present invention, as illustrated in ~~the Fig~~ Fig 5, the cutter holder 3 can be engaged from ~~both~~ either sides, that is, from either inside ~~and~~ or outside of the tip portion 2b. The manner to mount and dismount the grip 2 is the same as that of the embodiment shown in ~~Fig.~~ Figs 1 and 4.

(13) The paragraph from page 9, line 17 to page 9, line 28 has been amended as follows:

Fig 6 shows a condition that the blood vessel knife 1 incises the blood vessel 15. The blood vessel knife 1 is diagonal against the grip 2 at the angles  $\theta 1$  to  $\theta 8$  as described above, so that the blood vessel knife 1 approaches to the blood vessel 15 almost in parallel to the blood vessel 15, and it penetrates the upper blood vessel wall

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15a. At this moment, the bent portions 2a, 3a allow the grip 2 to bend at the angles between 10° and 60°, so that doctors can see the knife main body 4 clearly even ~~through~~ though they grip the grip 2. As shown, the cutter (cutting edge) 4a mounted on the knife main body 4 is oriented upwardly with respect to the blood vessel 15. In addition, since the knife main body 4 diagonally contacts the blood vessel 15, there is a distance to the lower blood vessel wall 15b, and it takes longer time for the cutter 4a to reach the lower blood vessel wall 15b, which reduces the risk that the knife main body 4 penetrates the lower blood vessel wall 15b.

(14) The paragraph from page 9, line 29 to page 10, line 7 has been amended as follows:

The moment the knife main body 4 of the blood vessel knife 1 penetrates the upper blood vessel wall 15a, the blood vessel knife 1 is moved in a direction indicated by the arrow in Fig. 6 by ~~about some~~ several millimeters to make the incision to a predetermined dimension. In this operation, since the knife main body 4 is inclined to the blood vessel 15, the distance to the lower blood vessel wall 15b can be kept long, which also reduces the risk to penetrate the lower blood vessel wall 15b. After that, the incision is enlarged with scissors for operation, and a

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bypass blood vessel is sutured so as to be connected to another blood vessel.

(15) The paragraph from page 11, line 5 to page 11, line 21 has been amended as follows:

~~{Effect of the Invention}~~

As described above, with this invention, in a blood vessel knife having a cutter holder at a tip of a rod-shaped grip, and a knife main body attached to a tip of the cutter holder, at least one of a first bent portion formed at an end or both ends of the grip and a second bent portion formed to the cutter holder that is detachably mounted to a tip portion of the grip is provided; the cutter holder can be engaged with the tip portion of the grip either from either inside and or outside of the tip portion of the grip and projected from the opposite side; and an angle between the grip and the knife main body is changeable depending on whether the cutter holder is engaged from the inside or the outside of the tip portion, therefore, doctors can use the blood vessel knife while confirming the position of the knife main body over the hand gripping the grip in operations, which makes it easy to perform operations. In addition, with this invention, it becomes easy to prevent the knife main body from penetrating the lower blood vessel wall, which lightens stress of doctors and burden of

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patients. Further, one blood vessel knife can be used at  
~~more or equal to two kinds of~~ two or more different angles,  
which makes it easier to cope with variety of conditions.